

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Reclamation Division Summary

Division Goal:

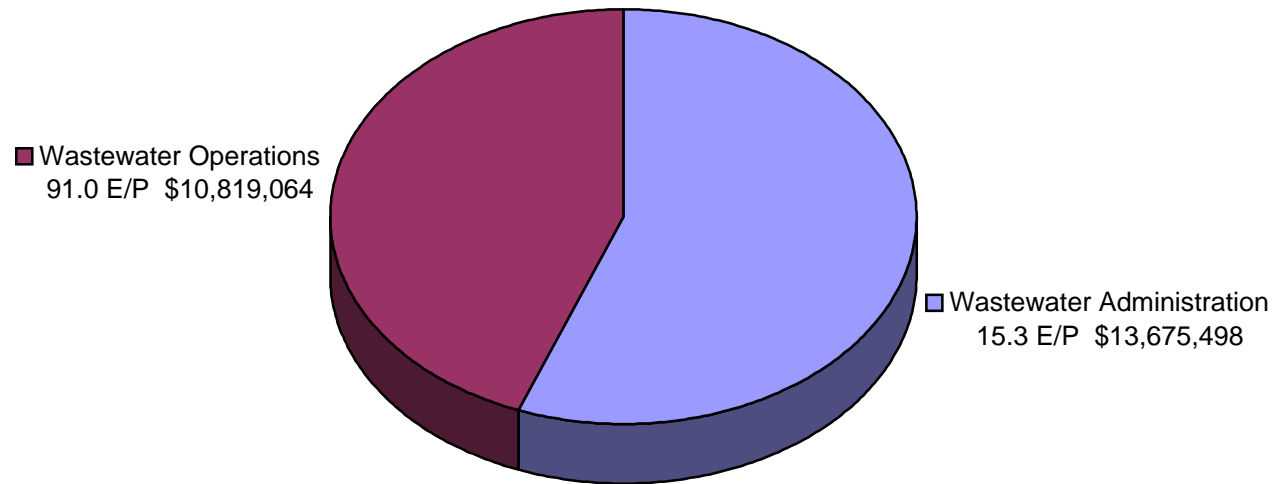
Assure that the County operates its Wastewater Collection System and Treatment Plants so that there is at least 75% design capacity and meets applicable regulatory requirements at all times.

Division Revenues and Expenditures:

	Sewer Fund	Bond Fund	Federal Funds	State Funds	Lapsed Bond	Park Assessment	Other Revenue	Total
Revenues								
Total Revenues	\$ 24,494,562	\$ 1,125,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 25,619,562
Expenditures								
Wastewater Admin	13,675,498	0	0	0	0	0	0	13,675,498
Wastewater Operations	10,819,064	0	0	0	0	0	0	10,819,064
CIP	0	1,125,000	0	0	0	0	0	1,125,000
Total Expenditures	\$ 24,494,562	\$ 1,125,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 25,619,562

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Reclamation Division Summary



Sewer Fund:	\$ 24,494,562	General Fund E/P:	106.3
Grant Revenue:	\$ 0	Grant Revenue E/P:	0.0
TOTAL BUDGET:	\$ 24,494,562	TOTAL EQUIVALENT PERSONNEL:	106.3

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Administration

Program Description:

The Wastewater Reclamation Division is composed of two major organizational elements, Administration and Operations. These two elements work in unison, with overlapping responsibilities but shared objectives. Wastewater Administration is responsible for managing the overall objectives of the division, expenditures and revenues and administering the sewer user charge and cesspool pumping system. It monitors compliance with County, State and Federal regulations regarding treatment, quality and discharges; provides permitting, monitoring and enforcement support for regulated discharges from commercial and industrial users; issues grease interceptor permits; and maintains the countywide KIVA database relating to these permits. The program also identifies, plans and constructs wastewater infrastructure to support community plans.

Program Goals and Activities:

Goal 5	Assure that the County operates its Wastewater Collection System and Treatment Plants so that there is at least 75% design capacity and meets applicable regulatory requirements at all times.				
Completion Date	June 30, 2010				
Objective of Activity	Division	Activity	Activity Output	Grant Funded	Grant Amount
Expand the Water Reuse Program by at least 25% of the volume used in FY 2002, by FY 2008.	Wastewater	Continue working on a reuse master plan for West Maui.	Reuse Master Plan for West	N	
		Extend Reclaimed Water Line along Kihei Road, Waipuilani Road and Liloa Drive (design and construction).	6000 lineal feet of reclaimed water line	N	
Verify that all food establishments with grease interceptors are Appendix H compliant by January 1, 2004, in conformance with the consent decree.	Wastewater	Permit all new commercial kitchens		N	
		Inspect all commercial kitchens on an annual basis		N	
Promote public awareness of regulations, ensure the standards of customer service excellence are met, and provide appropriate staff training.	Wastewater	Conduct public presentations	75 groups or organizations	N	
		Provide customer service and technical training, as appropriate.		N	
Ensure compliance with regulatory requirements by identifying, planning, rehabilitating and constructing needed Wastewater infrastructure.	Wastewater	Clean or inspect sewer lines.		N	
		Wailuku Wastewater Pump Station Force Main Replacement (construction).		N	

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Administration

Program Goals and Activities (Continued):

Objective of Activity	Division	Activity	Activity Output	Grant Funded	Grant Amount
Ensure compliance with regulatory requirements by identifying, planning, rehabilitating and constructing needed Wastewater infrastructure.	Wastewater	EPA consent decree compliance projects (design and construction).		N	
		Central Maui Wastewater Reclamation Facility (study).		N	

Program Resources - General Fund:

Expense Type	FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		
	Actual		Actual		Actual		Appropriation		Request	Expansion	Total
Equivalent Personnel E/P	14.0		14.0		15.0		15.0		15.3	0.0	15.3
Salaries and Wages	\$ 607,519	\$	652,459	\$	729,848	\$	845,521	\$	845,721	0	\$ 845,721
Operations	457,242		456,915		562,449		624,700		622,300	0	622,300
*Operations Special Cost	10,699,943		10,349,278		10,379,750		11,734,221		12,189,777	0	12,189,777
Equipment	25,330		551		760		0		16,200	1,500	17,700
Program Total	\$ 11,790,034	\$	11,459,203	\$	11,672,807	\$	13,204,442	\$	13,673,998	\$ 1,500	\$ 13,675,498

FY 02 - Cesspool Pumping Program has been combined with Wastewater Admin Program under Department/Division reorganization.

FY 99-01 Actuals do not include Cesspool Pumping

* Operation Special Cost: Contributions to the General Fund for ERS/FICA, Health Fund, Overhead charges and Debt Service.

Program Highlights:

Programs in conformance with the Consent Decree continued this year including: Initiating Phase II of the collection system analysis, implementation of the requirement for a Site Specific Spill Prevention Plan (SSSPP) for all construction projects involving or in the vicinity of sewer lines, further collection system database refinement, and continuing preventative maintenance operations.

In FY 2002, the Division completed issuing permits to all existing food service establishments with a grease interceptor.

Reclaimed Water Program

In South Maui, design to expand the existing distribution system for the Kihei WWRF started. Design is being coordinated with adjacent roadway design contracts and a third consultant was selected to design the Division's portion.

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Wastewater Administration

Program Highlights (Continued):

In West Maui, construction is wrapping up on the expansion of the distribution system. The expansion will provide Maui Pineapple Company with 500,000 gallons of reclaimed water per day. This project was a result of the Consent Decree. The West Maui Reclaimed Water Master Plan and the Lahaina WWRF Modifications, Stage 1a Study will be commencing.

Design

The Islandwide Force Main Corrosion/Condition Study is still ongoing. The project is entering the final phase which involves exposing the piping and assessing the level of corrosion. Other ongoing designs include the Waiale Avenue Line Relocation, the Wailuku WWPS Force Main Relocation, and Lahaina WWPS 5 & 6 Force Main Relocation.

Construction

Modifications of the Kahului WWRF is ongoing and expected to be completed in July 2004. In the first quarter of FY 2003, the design-build contract for the Kihei WWRF maintenance building was awarded, and modifications to the Lahaina WWPS's 1 & 2 were completed.

Performance Measures:

	FY 2002 Actual	FY 2003 Estimate	FY 2003 1st Qtr
Bi-annual discharge permits issued (**private haulers and restaurants)	115	345	40
Grease interceptors inspected (including violations)	433	495	129
Fines paid for non-compliance	\$500	<\$2,000	\$0
Total recycled water sold (gallons)	606,826,480	750,000,000	215,636,630
Percentage of effluent reused vs. flow processed	20%	22%	25%
Public presentations	89	75	7
Public contacts	2,614	2,850	237

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Operations

Program Description:

Wastewater Operations is responsible for the management, operation and repair of County wastewater collection, transportation and processing infrastructure and related facilities. Activities include process control, safety and training, solids management, production of high quality effluent for recycling, regulatory reporting and compliance, laboratory analysis, preventive maintenance and efficient operation.

Program Resources - Wastewater Fund:

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	73.0	73.0	**89.0	90.0	91.0	0.0	91.0
Salaries and Wages	\$ 3,221,346	\$ 3,185,144	\$ 3,114,557	\$ 3,436,637	\$ 3,478,159	\$ 0	\$ 3,478,159
Operations	877,634	6,349,518	6,490,330	5,665,475	5,349,005	0	5,349,005
*Operations Special Cost	107,710	549,610	94,697	1,349,000	1,588,900	0	1,588,900
Equipment	449,862	653,480	1,275,429	553,800	350,000	53,000	403,000
Program Total	\$ 4,656,552	\$ 10,737,752	\$ 10,975,013	\$ 11,004,912	\$ 10,766,064	\$ 53,000	\$ 10,819,064

*Operations Special Cost: Contingency for repairs, sludge disposal, contingency for collection system, repair maintenance for sewer lines and safety training.

**Increase - Collections System Prog and Reclamation Facilities Prog combined to form Wastewater Operations Program as part of Division/Program reorganization.

District Resources - Wastewater Fund:

Operations Administration

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	10.0	10.0	10.0	11.0	11.0	0.0	11.0
Salaries and Wages	\$ 446,270	\$ 470,760	\$ 381,949	\$ 503,331	\$ 515,819	\$ 0	\$ 515,819
Operations	124,403	155,443	1,036,150	187,950	147,350	0	147,350
*Operations Special Cost	665,640	475,560	231,656	1,254,000	1,493,900	0	1,493,900
Equipment	47,868	319,990	231,656	20,000	180,000	0	180,000
Program Total	\$ 1,284,181	\$ 1,421,753	\$ 1,881,411	\$ 1,965,281	\$ 2,337,069	\$ 0	\$ 2,337,069

*Operations Special Cost: contingency reserve for repairs, sludge disposal and safety training.

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Operations

District Resources - Wastewater Fund (Continued):

Central Lab

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		
	Actual	Actual	Actual	Appropriation	Request	Expansion	Total
Equivalent Personnel E/P	3.0	3.0	3.0	3.0	3.0	0.0	3.0
Salaries and Wages	\$ 108,322	\$ 112,443	\$ 122,079	\$ 130,355	\$ 130,355	\$ 0	\$ 130,355
Operations	59,404	59,026	46,404	77,775	71,375	0	71,375
Equipment	11,599	28,537	9,055	20,000	4,000	0	4,000
Program Total	\$ 179,325	\$ 200,006	\$ 177,538	\$ 228,130	\$ 205,730	\$ 0	\$ 205,730

Wailuku/Kahului Wastewater Reclamation Facility (WWRF) - Includes Kahului and South Maui

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		
	Actual	Actual	Actual	Appropriation	Request	Expansion	Total
Equivalent Personnel E/P	18.0	18.0	19.0	19.0	19.0	0.0	19.0
Salaries and Wages	\$ 607,921	\$ 675,054	\$ 663,834	\$ 713,206	\$ 720,328	\$ 0	\$ 720,328
Operations	1,466,006	2,139,872	1,514,371	1,778,700	1,729,000	0	1,729,000
Equipment	49,195	58,234	596,477	233,800	30,000	0	30,000
Program Total	\$ 2,123,122	\$ 2,873,160	\$ 2,774,682	\$ 2,725,706	\$ 2,479,328	\$ 0	\$ 2,479,328

Lahaina Wastewater Reclamation Facility (WWRF)

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		
	Actual	Actual	Actual	Appropriation	Request	Expansion	Total
Equivalent Personnel E/P	19.0	19.0	18.0	18.0	18.0	0.0	18.0
Salaries and Wages	\$ 706,266	\$ 632,994	\$ 558,787	\$ 673,392	\$ 669,918	\$ 0	\$ 669,918
Operations	1,590,227	2,212,485	1,782,139	1,738,000	1,647,800	0	1,647,800
Equipment	1,702	101,211	111,708	39,000	57,000	0	57,000
Program Total	\$ 2,298,195	\$ 2,946,690	\$ 2,452,634	\$ 2,450,392	\$ 2,374,718	\$ 0	\$ 2,374,718

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Wastewater Operations

District Resources - Wastewater Fund (Continued):

Kihei Wastewater Reclamation Facility (WWRF)

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	18.0	18.0	17.0	17.0	17.0	0.0	17.0
Salaries and Wages	\$ 650,141	\$ 600,020	\$ 649,102	\$ 638,656	\$ 631,534	\$ 0	\$ 631,534
Operations	1,219,081	1,507,819	1,683,667	1,603,800	1,524,100	0	1,524,100
Equipment	21,751	38,916	177,871	181,500	0	53,000	53,000
Program Total	\$ 1,890,973	\$ 2,146,755	\$ 2,510,640	\$ 2,423,956	\$ 2,155,634	\$ 53,000	\$ 2,208,634

Moloka'i Wastewater Reclamation Facility (WWRF)

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	3.0	3.0	3.0	3.0	3.0	0.0	3.0
Salaries and Wages	\$ 111,047	\$ 112,885	\$ 117,330	\$ 115,639	\$ 115,639	\$ 0	\$ 115,639
Operations	98,799	105,933	115,829	133,980	120,010	0	120,010
Equipment	27,756	822	0	0	0	0	0
Program Total	\$ 237,602	\$ 219,640	\$ 233,159	\$ 249,619	\$ 235,649	\$ 0	\$ 235,649

Lana'i Wastewater Reclamation Facility (WWRF)

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Salaries and Wages	\$ 58,039	\$ 58,038	\$ 61,257	\$ 65,197	\$ 65,197	\$ 0	\$ 65,197
Operations	26,127	15,098	21,839	25,270	26,270	0	26,270
Equipment	935	8,634	0	0	9,000	0	9,000
Program Total	\$ 85,101	\$ 81,770	\$ 83,096	\$ 90,467	\$ 100,467	\$ 0	\$ 100,467

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Operations

District Resources - Wastewater Fund (Continued):

Wastewater Collection System

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	17.0	17.0	17.0	17.0	18.0	0.0	18.0
Salaries and Wages	\$ 533,340	\$ 522,950	\$ 560,219	\$ 596,861	\$ 629,369	\$ 0	\$ 629,369
Operations	162,799	153,842	109,510	120,000	83,100	0	83,100
*Operations Special Cost	59,842	74,050	94,697	95,000	95,000	0	95,000
Equipment	289,495	97,136	148,662	59,500	70,000	0	70,000
Program Total	\$ 1,045,476	\$ 847,978	\$ 913,088	\$ 871,361	\$ 877,469	\$ 0	\$ 877,469

* Operation Special Cost: contingency for collection system and repair maintenance for sewer lines.

Program has been combined with WW Reclamation Facilities Program and is now called Wastewater Operations Program

Performance Measures:

	FY 2002 Actual	FY 2003 Estimate	FY 2003 1st Qtr
<u>Summary</u>			
Total wastewater processed (gallons)	6,039,655,000	6,158,285,000	1,390,490,000
Annual compliance days (no spills or underground injection control violations)	348	343	86
Miles of sewer lines cleaned or inspected	123.10	125.00	18.90
Kilowatts per 1,000 gallons processed	3.97	3.67	4.00
Total collection and processing cost per 1,000 gallons	\$2.44	\$2.16	not available
Recycled water cost per 1,000 gallons (operations and maintenance only; excludes debt service)	\$.35	\$.34	not available
<u>Collection System</u>			
Annual compliance days	354	349	89
Miles of sewer lines cleaned or inspected	123.10	125.00	18.90
Total collection cost per 1,000 gallons	\$.25	\$.21	not available
<u>Wailuku/Kahului</u>			
Total wastewater processed (gallons)	1,918,375,000	2,207,400,000	454,161,000
Annual compliance days	363	363	90
Kilowatts per 1,000 gallons processed	3.80	3.40	3.84
Total processing cost per 1,000 gallons	\$2.18	\$1.76	not available

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Wastewater Operations

Performance Measures (Continued):

Lahaina

Total wastewater processed (gallons)	1,777,990,000	1,973,310,000	461,990,000
Annual compliance days	363	363	92
Kilowatts per 1,000 gallons processed	3.97	3.70	3.93
Total processing cost per 1,000 gallons	\$2.17	\$2.21	not available
Recycled water cost per 1,000 gallons	\$.41	\$.39	not available
(operations & maintenance only; excludes debt service)			

Kihei

Total wastewater processed (gallons)	1,686,635,000	1,781,530,000	421,288,000
Annual compliance days	363	363	91.00
Kilowatts per 1,000 gallons processed	4.16	3.96	4.13
Total processing cost per 1,000 gallons	2.33	1.86	not available
Recycled water cost per 1,000 gallons	\$.32	\$.29	not available
(operations & maintenance only; excludes debt service)			

Moloka'i

Total wastewater processed (gallons)	80,760,000	78,625,000	20,934,000
Annual compliance days	365	365	92
Total processing cost per 1,000 gallons	\$3.86	\$3.80	not available

Lana'i

Total wastewater processed (gallons)	113,187,000	117,420,000	32,117,000
Annual compliance days	365	365	92
Total processing cost per 1,000 gallons	\$1.00	1.26	not available

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Cesspool Pumping

Program Resources - Wastewater Fund:

Expense Type	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004		Total
	Actual	Actual	Actual	Appropriation	Request	Expansion	
Equivalent Personnel E/P	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salaries and Wages	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	0
Operations	133,848	132,468	0	0	0	0	0
Equipment	0	0	0	0	0	0	0
Program Total	\$ 133,848	\$ 132,468	\$ 0	\$ 0	\$ 0	\$ 0	0

Program Highlights:

In FY 2002, the Cesspool program was combined with the Wastewater Administration Program. This was done as part of the Division/Program reorganization.

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Personnel Position Summary

Position	FY 02 E/P Appropriated	FY 03 E/P Appropriated	FY 04 E/P Request
Accountant III	1.0	1.0	1.0
Administrative Service Assistant II	1.0	1.0	1.0
Assistant WWTP Operator	16.0	15.0	15.0
Asst. WW Operations Prog. Superintendent	1.0	1.0	1.0
Asst. WWTP Operations/Maint. Sup. IV	3.0	3.0	3.0
Civil Engineer IV	3.0	3.0	3.0
Civil Engineer V	1.0	1.0	1.0
Civil Engineer VI	1.0	1.0	1.0
Clerk III	1.0	2.0	2.0
Clerk Typist III	3.0	2.0	2.0
Construction Inspector II	1.0	1.0	1.0
Electrician Helper	1.0	1.0	1.0
Electronic Technician	1.0	3.0	3.0
Electronic Technician I	2.0	0.0	0.0
Equipment Operator III	3.0	3.0	4.0
Laboratory Technician I	1.0	1.0	1.0
Mechanical Engineer III	1.0	1.0	1.0
Moloka'i WW System Oper./Maint. Sup. III	1.0	1.0	1.0
Plant Electrician/Electronic Repairer I	4.0	4.0	4.0
Sanitary Chemist	1.0	1.0	1.0
Secretary II	1.0	1.0	1.0
Sewer Maintenance Helper	4.0	4.0	4.0
Sewer Maintenance Repairer I	5.0	5.0	5.0
Sewer Maintenance Repairer II	2.0	2.0	2.0
Sewer Maintenance Supervisor II	1.0	1.0	1.0
Summer Intern	0.0	0.3	0.3
Supervising Sanitary Chemist	1.0	1.0	1.0
Wastewater Pretreatment Coordinator	1.0	1.0	1.0
Wastewater Reclamation Coordinator	1.0	1.0	1.0
Wastewater Reclamation Division Chief	1.0	1.0	1.0

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT

Personnel Position Summary

Position	FY 02 E/P Appropriated	FY 03 E/P Appropriated	FY 04 E/P Request
Wastewater Service Investigator	1.0	0.0	0.0
Wastewater Source Control Technician	0.0	1.0	1.0
WW Collection System Superintendent	1.0	1.0	1.0
WW Operations Program Superintendent	1.0	1.0	1.0
WW Operations Training Officer	0.0	1.0	1.0
WW Technical Support Engineer	1.0	1.0	1.0
WWTP Maintenance Coordinator	1.0	1.0	1.0
WWTP Maintenance Mechanic	11.0	11.0	11.0
WWTP Maintenance Mechanic Helper	2.0	2.0	2.0
WWTP Operations/Maint. Supervisor IV	3.0	3.0	3.0
WWTP Operator I	1.0	1.0	1.0
WWTP Operator III	1.0	1.0	1.0
WWTP Operator IV	6.0	7.0	7.0
WWTP Operator Trainee	0.0	1.0	1.0
WWTP Truck Driver Superintendent	1.0	1.0	1.0
WWTP Truck Driver	2.0	2.0	2.0
WWTP Worker	8.0	7.0	7.0
TOTAL	104.0	105.3	106.3

Equivalent Personnel (E/P) = Full-time equivalents of full-and part-time personnel.